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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/625,617	OZAWA ET AL.
	Examiner	Art Unit
	Jean E. Lesperance	2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7/24/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed September 14, 2005 is entered and claims 1 to 14 are pending.

Response to Arguments

2. Applicant's arguments filed September 14, 2005 have been fully considered but they are not persuasive. The applicant argued that the prior art does not disclose or suggest that the potential of the pixel electrode being higher that the potential of the opposite electrode when each pixel is "on". Examiner disagrees because the prior art teach Fig.2, where at the positive side of the EL element is the pixel electrode and at the negative side is the opposite electrode and current flows from negative to positive which means that the pixel electrode is higher that the opposite electrode when Qs is turn on. When Qs is turn on which also turn Ql on, the current flows from the first gate electrode to the second gate electrode to the pixel electrode which is positive and to the opposite electrode which is negative (See Fig.2, picture element 130)). Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 are rejected under 35 U.S.C. 102 (e) as being unpatentable over 5,670,792 (Utsugi et al.).

Regarding claim 1, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels comprising:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a respective scanning line of the plurality of scanning lines (103);

a second transistor (QI) to control conduction between a respective common power supply line (106) of the plurality of common power supply lines (106); and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the potential of the corresponding common power supply line being higher than a potential of the opposite electrode when the each pixel is "on" (the capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)) where at the positive side of the EL element is the pixel electrode and at the negative side is the opposite electrode and current flows from negative to positive and at Figure 2, it shows that the current is flowing toward the common electrode line (106) which means that it is at a higher potential than the opposite, and

the potential of the pixel electrode being higher than the potential of the opposite electrode when the each pixel is "on" (the pixel electrode is at the positive side of the EL

element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode when Gs is “on”).

Regarding claim 2, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels comprising:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a respective scanning line of the plurality of scanning lines (103);

a second transistor (QI) to control conduction between a respective common power supply line (106) of the plurality of common power supply lines (106); and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or

positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (the capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the potential of the pixel electrode being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode).

Regarding claim 3, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a corresponding scanning line of the plurality of scanning lines (103);

a second transistor Fig.2 (QI); and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the

luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the potential of the pixel electrode being higher than the potential of the opposite electrode and a lower than the potential of the respective common power supply line when a current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode and)) where at the positive side of the EL element is the pixel electrode and at the negative side is the opposite electrode and current flows from negative to positive and at Figure 2, it shows that the current is flowing toward the common electrode line (106) which means that it is at a higher potential than the opposite and the pixel electrode potential is lower than the common electrode).

Regarding claim 4, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be

difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a corresponding scanning line of the plurality of scanning lines (103);

a second transistor Fig.2 (Ql); and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when the driving current flows from the respective power supply line to the opposite electrode (capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the

luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25), and

the potential of the pixel electrode being higher than the potential of the opposite electrode when the driving current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)).

Regarding claim 5, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a corresponding scanning line of the plurality of scanning lines (103);

a second transistor (QI) having a second gate electrode; and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the luminescent element being able to emit a light due to a driving current that flows from the opposite electrode to the pixel electrode Fig.2 (EL),

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the potential of the second gate electrode being lower than or being equal to the potential of the respective common power supply line (The capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the

capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)).

Regarding claim 6, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a corresponding scanning line of the plurality of scanning lines (103);

a second transistor (QI) having a second gate; and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the luminescent element being able to emit a light due to a driving current that flows from the opposite electrode to the pixel electrode Fig.2 (EL),

the potential of the second gate electrode being higher than or being equal to the potential of the opposite electrode (the capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL

element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)).

Regarding claim 7, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines Fig.2 (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a respective scanning line of the plurality of scanning lines (103);

a second transistor (Ql) having a second electrode; and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the luminescent element being able to emit a light due to a driving current that flows from the pixel electrode to the opposite electrode Fig.2 (EL),

the potential of the second gate electrode being higher than or being equal to the potential of the opposite electrode (the capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)).

Regarding claim 8, Utsugi et al. teach the first transistor and the second transistor being of opposite conduction type each other (a current-controlling transistor Q.sub.I in a picture element 10 in one row has a source electrode thereof, i.e. an electrode thereof at the opposite end to another connected to a luminescent element EL, connected to a scan electrode line 3.sub.N. in an adjacent previous row, and a charge holding capacitor C in the same picture element 10 has one electrode thereof, i.e. one of two electrodes thereof at the opposite end to the other connected to a gate electrode of the transistor Q.sub.I, connected to the same scan electrode line 3.sub.N (column 5, lines 63-67) and (column 6, lines 1-5)).

Regarding claim 9, Utsugi et al. teach a display apparatus (the organic EL element

of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines Fig.2 (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a respective scanning line of the plurality of scanning lines (103);

a second transistor (Ql) having a second electrode; and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the luminescent element being able to emit a light due to a driving current that flows from the pixel electrode to the opposite electrode Fig.2 (EL),

the potential of the second gate electrode being higher than or being equal to the potential of the opposite electrode (the capacitor C then has its terminal voltage applied

between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminescent. It therefore is possible to make the luminescent element EL luminescent with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see

Fig.2)).

Regarding claim 10, Utsugi et al. teach the second transistor (Ql) being of P-channel type.

Regarding claim 11, Utsugi et al. teach the second transistor (Qs) being of P-channel type.

Regarding claim 12, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels including:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a respective scanning line of the plurality of scanning lines (103);

a second transistor Fig.2 (Ql); and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the potential of the pixel electrode being higher than the potential of the opposite electrode (the capacitor C then has its terminal voltage applied between a gate and a

source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminesce. It therefore is possible to make the luminescent element EL luminesce with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)).

Regarding claim 13, Utsugi et al. teach a display apparatus (the organic EL element of a charge injection type employing a thin-filmed organic luminescent material as an illuminant, hereinafter called "organic thin-film EL element", is attracting attentions for the possibility of realizing an inexpensive full-colored wide display that would be difficult by using an inorganic thin-film EL element or an LED (column 1, lines 18-24)) comprising:

a plurality of scanning lines Fig.2 (103);

a plurality of data lines (101);

a plurality of common power supply lines Fig.2 (106); and

a plurality of pixels Fig.2 (130), each pixel of the plurality of pixels comprising:

a first transistor Fig.2 (Qs) having a first gate electrode that is connected to a respective scanning line of the plurality of scanning lines (103);

a second transistor Fig.2 (QI) having a second gate electrode; and

a luminescent element Fig.2 (EL) provided between a pixel electrode and an opposite electrode opposed to the pixel electrode,

the pixel electrode being connected to a corresponding common supply line through the second transistor (the pixel electrode which is including in the top side or positive side of the EL element is connected to the common electrode line (106) through the Q1 which is the second transistor (see Figure 2)),

the luminescent element being able to emit a light due to a driving current that flows from the pixel electrode to the opposite electrode Fig.2 (EL),

the potential of the second gate electrode being higher than or being equal to the potential of the opposite electrode (the capacitor C then has its terminal voltage applied between a gate and a source of the current-controlling transistor Q.sub.I so that, depending on a drain current vs. gate voltage characteristic of the transistor Q.sub.I a current is conducted from the power supply electrode line 105 through the luminescent element EL and the transistor Q.sub.I to a common electrode line 106, making the luminescent element EL luminescent. It therefore is possible to make the luminescent element EL luminescent with a preset luminance determined from a relationship between the luminance of the element EL and the imposed voltage on the capacitor C. Moreover, the applied voltage between the gate and the source of the current-controlling transistor Q.sub.I is maintained by a quantity of stored charges in the capacitor C, at a substantially constant voltage for a predetermined time period (column 3, lines 10-25)), and

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the respective power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)),

the potential of the respective common power supply line being higher than the potential of the opposite electrode when a current flows from the corresponding power supply line to the opposite electrode (the pixel electrode is at the positive side of the EL element and the opposite electrode is at the negative side of the EL element which means that the pixel electrode has a higher potential than the opposite electrode (see Fig.2)).

Regarding claim 14, Utsugi et al. teach the second transistor (Qs) being of P-channel type.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:OOAM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

Jean Lesperance

Art Unit 2674

Date 12/3/2005

Patrick N. Edouard

'RICK N. EDOUARD
SUPERVISORY PATENT EXAMINER